

Journal of Applied Research on Children: Informing Policy for Children at Risk

Volume 7

Issue 1 *50 Years After the War on Poverty: Historic Victories and New Challenges*

Article 3

Trends in Child Poverty by Race/Ethnicity: New Evidence Using an Anchored Historical Supplemental Poverty Measure

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Recommended Citation

Nolan, Laura; Garfinkel, Irwin; Kaushal, Neeraj; Nam, JaeHyun; Waldfogel, Jane; and Wimer, Christopher () "Trends in Child Poverty by Race/Ethnicity: New Evidence Using an Anchored Historical Supplemental Poverty Measure," *Journal of Applied Research on Children: Informing Policy for Children at Risk*: Vol. 7: Iss. 1, Article 3.

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Trends in Child Poverty by Race/Ethnicity: New Evidence Using an Anchored Historical Supplemental Poverty Measure

Authors

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INTRODUCTION

If we are to properly assess the country's progress in the War on Poverty, especially progress among children, we need an accurate measure of poverty. According to the US official measure of poverty, more than 1 in 5 (21.1%) of US children are poor.¹ But the overall child poverty rate does not accurately convey the extent of disadvantage faced by particular groups of children; the risk for poverty varies starkly by race and ethnicity. Non-Hispanic black children historically have had the highest child poverty rate and remain at elevated risk today, with more than 1 in 3 (37.1%) poor.¹ Latino children are also at elevated risk for poverty, with nearly 1 in 3 (31.9%) poor. In contrast, non-Hispanic white children have a considerably lower poverty rate, at 12.3%.¹

Official poverty statistics have been criticized, however, for being based on an outdated measure of poverty.^{2,3} First put into use in the 1960s, the official poverty measure (OPM) thresholds have been updated for inflation but still reflect the living standards, family budgets, and family structures of that time. Moreover, when family resources are tallied, the OPM misses key government programs, such as the Food Stamp Program and tax credits, that have expanded since the 1960s. For these reasons, the Census Bureau and the Bureau of Labor Statistics (BLS) implemented an improved "supplemental poverty measure" (SPM) in 2011⁴ for calendar years 2009 and 2010. This SPM is now released annually alongside the OPM (see Short⁵ for the latest data as of this writing), but the Census Bureau has no plans to produce the measure historically. However, historical data on levels and trends in poverty are essential for a better understanding of the progress the country has made since President Lyndon B. Johnson's famous declaration of the War on Poverty in 1964.⁶ Understanding what has been successful in the amelioration of economic disadvantage in the past is important for assessing what might be successful in the future. What's more, success and its sources may vary by race and ethnicity.

We use a historical version of the SPM to provide the first SPM estimates of racial/ethnic differences in child poverty for the period from 1970 to the present. We begin our analysis in 1970 because that is the first year in which we can reliably distinguish the mutually exclusive categories of non-Hispanic whites, non-Hispanic blacks, and Latinos (unfortunately, data limitations prevent us from examining other groups over the long term). We detail below our data and methods, then describe our main results and conclusions.

DATA AND METHODS

We use data from multiple years of the Annual Social and Economic Supplement of the Current Population Survey (also known as the March CPS) combined with data from the BLS Consumer Expenditure Survey (CEX) to produce SPM estimates for the period from 1970 to 2014. We use a methodology similar to that

employed by the Census Bureau and the BLS to produce their SPM estimates, but with adjustments for differences in availability of data over time.

Our methodology differs from that of the SPM in only one respect. Instead of using a poverty threshold that is recalculated over time, we use today's threshold and carry it back historically by adjusting it for inflation with the Consumer Price Index Research Series Using Current Methods (CPI-U-RS). Because this alternative measure is anchored with today's SPM threshold, we refer to it as an anchored SPM. An advantage of an anchored SPM is that poverty trends resulting from such a measure can be explained only by changes in income and net transfer payments (cash or in kind). Trends in poverty based on a relative measure (eg, SPM poverty), on the other hand, can be due to changes in thresholds over time. Thus, an anchored SPM arguably provides a cleaner measure of how changes in income and net transfer payments have affected poverty historically.^{7*}

Overview of Our Methodology

As detailed below, we follow the Census Bureau and the BLS's SPM methodology and set poverty thresholds based on consumer expenditures for food, clothing, shelter, and utilities (FCSU) between the 30th and 36th percentiles, plus an additional 20% to account for other necessary expenditures. Thresholds are further adjusted depending on whether the household makes a mortgage or rent payment or owns its home free and clear of a mortgage. Critically, in contrast to our prior work,^{7,8} in this paper we also adjust poverty thresholds geographically for differences in relative housing costs across the United States, as detailed below. Members of various racial and ethnic groups are likely to be concentrated in different areas of the country, and this distribution may have changed differentially over time, making geographic adjustment for costs of living a critical step in generating SPM poverty trends by race and ethnicity.[†]

Lastly, rather than comparing the poverty thresholds with only pre-tax income, as is done in the OPM, SPM thresholds are compared with a much broader set of resources, including post-tax income and near-cash transfers (such as the Supplemental Nutrition Assistance Program [SNAP]/Food Stamp Program, Earned Income Tax Credit [EITC], and housing subsidies), and nondiscretionary expenses (such as work, child care, and medical out-of-pocket expenditures) are subtracted. Various resource components are available in the

* All analyses in this paper are also available with the use of quasi-relative poverty thresholds; results are available upon request.

† Geographic adjustment makes little difference in results for non-Hispanic whites and non-Hispanic blacks, who are distributed throughout high- and low-cost areas, but reveals higher poverty rates for Latinos, who are more likely to live in high-cost areas (see Figures A2 through A4 in the Appendix section).

CPS only in certain years, as detailed below. We thus must impute these resource components in missing years (as described in Fox et al⁸). We then aggregate total resources to the SPM unit level, compare them with the poverty thresholds for that year, and calculate poverty rates. We repeat this process historically.

Poverty Units

The OPM defines the “poverty unit,” or those who are thought to share resources, as the family (ie, all individuals in the household related by blood, marriage, or adoption). The SPM broadens the definition of family to include unmarried partners (and their children/family members), unrelated children younger than age 15, and foster children younger than age 22 (when identifiable).⁹ As unmarried partners are not identified in the CPS before 1995 (and non-household heads before 2007), we use the Census Bureau’s adjusted Persons of the Opposite Sex Sharing Living Quarters (adjusted POSSLQ) method of identifying unmarried partners and their children within a household.¹⁰ Before 1995, unmarried partner households are defined as those in which two unrelated adults of the opposite sex live together with no other adults except relatives and foster children. We create SPM poverty units in the CPS in all years back to 1970 (see Fox et al⁸ for details). We pool all resources and nondiscretionary expenses across members of the poverty unit to determine poverty status under our historical time series.

Poverty Thresholds

To set the anchored SPM threshold, we first set a threshold for 2012. We do so following the BLS methodology of constructing poverty thresholds using a 5-year moving average of 2007-2012 CEX data for out-of-pocket expenditures on FCSU by consumer units with exactly two children (the reference unit).¹¹ All expenditures by consumer units with two children are adjusted by the three-parameter equivalence scale (described in Fox et al⁸; see also Betson and Michael¹²) and then ranked into percentiles. We then multiply the average FCSU for the 30th through 36th percentiles of FCSU expenditures by 1.2 to account for additional basic needs. The BLS produces base thresholds for three housing status groups: owners with a mortgage, owners without a mortgage, and renters. The shelter and utilities (SU) portion of the FCSU is slightly different for each of these three groups, and it is this SU portion that is subjected to geographic adjustment. We detail this procedure below because it is a key innovation relative to prior work using the historical SPM. Once we have established the thresholds for 2012, we then carry them back historically (and forward to the most recent year available) by adjusting them for inflation with the CPI-U-RS.

Geographic adjustment of poverty thresholds. The cost of living – in particular, housing costs – varies substantially across the United States, and

these costs affect a household's ability to acquire the basic bundle of goods. The National Academy of Sciences Panel on Poverty and Family Assistance recommended that poverty thresholds be adjusted to reflect these differences.³ More specifically, thresholds should be raised in expensive places and lowered in inexpensive places by the relative cost of living in these areas.[‡] We follow the methodology of the Census Bureau and use median rents for a "decent" two-bedroom unit (living quarters with complete kitchen and bathroom facilities) in metropolitan and nonmetropolitan areas as an indicator of an area's cost of living. We compute the ratio of these rents to the national average to create the geographic adjustment. The geographic adjustment factor is above 1 when the median rent of a geographic area is above the national average, and below 1 when the median rent of a geographic area is below the national average.

We obtain median rents from the best available data source in each year: the decennial census (1970-1984), the Department of Housing and Urban Development Fair Market Rents (1985-2008), and the Census Bureau SPM Public Use Research Files, which contain already-adjusted thresholds for 2009 and after. Rents are available only every 10 years from decennial census data, so we computed yearly rents by linearly interpolating between these data points. Before 1976, not all states were individually identified in the CPS; we compute weighted averages of the median rents for state groups based on the state populations in those years. Although most households can be identified as located in metropolitan or nonmetropolitan areas, confidentiality restrictions in the decennial census in particular require that it not be possible to identify residents in small areas either directly or indirectly. Because geographic area of residence can assist in the identification of households or individuals in these small areas and thus breach confidentiality restrictions, the geographic status of households in these areas is "not identifiable." We compute the geographic adjustment for the "not identifiable" group, when available, separately by state; the "not identifiable" are not available in the Fair Market Rents data.

The geographic adjustment factor is computed as the area's median rent divided by the national average and is then multiplied by the portion of the poverty threshold representing shelter and utilities, which increases from about 30% in the 1960s to 50% in the present day, reflecting the diminishing relative cost of food and the increasing relative cost of housing in the United States (see Renwick¹³ for additional detail).

Resources

The SPM differs from the OPM by taking into account a fuller set of resources, including near-cash and in-kind benefits, tax credits, and nondiscretionary

[‡] This procedure is not without controversy; people can move to lower-cost areas if they desire. People may also benefit from various services and amenities not captured in the poverty measure that are available in high-cost areas.

expenses. We describe below how we calculate the value of these various types of resources. Especially in the very early years of available CPS data, we rely on a number of imputation approaches to estimate resources that the CPS did not ask respondents about at the time. Our imputation approach builds upon extensive previous work adapting the SPM to alternate data sets, such as the American Community Survey, or to earlier years of the CPS when not all requisite data are available.¹⁴⁻¹⁹ Following previous work, all in-kind transfers are valued at full face value.

Supplemental Nutrition Assistance Program/Food Stamp Program.

The CPS routinely measures receipt of SNAP, formerly known as the Food Stamp Program, beginning in 1980 (for calendar year 1979). The program, however, existed for all the years included in our analysis (albeit on a very small scale in the earliest years). It grew rapidly over the 1970s as it was extended nationally, making it important to capture SNAP/Food Stamps benefits before 1979 in our historical SPM measure. We use a two-step procedure to impute SNAP/Food Stamps for the earlier years; each household in the CPS is first predicted to receive or not to receive SNAP/Food Stamps, followed by imputation of the benefit amount for those predicted to receive SNAP. We base the procedure for imputation on administrative data on SNAP/Food Stamps caseloads and benefit levels (for further details see Fox et al⁸).

School Lunch Program. The National School Lunch Act of 1946 launched a federally assisted meal program that provides free or low-cost lunches to children in public and nonprofit private schools. Like SNAP/Food Stamps, however, the CPS begins measuring participation only from 1980 (for calendar year 1979). We impute the value of the School Lunch Program benefits using a procedure similar to SNAP/Food Stamps imputation (for further details see Fox et al⁸).

Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). WIC, which provides coupons that can be used by low-income pregnant women and women with infants and toddlers to purchase healthful food, was established as a pilot program in 1972 and became permanent in 1974, with large expansions occurring in the 1970s. Although the CPS does not provide data on the value of WIC, since 2001 it includes data on the number of WIC recipients per household. Therefore, a procedure was necessary to impute participation in WIC before 2001 and the value of WIC for all years (for further details see Fox et al⁸).

Housing assistance. Federal housing assistance programs have existed in the United States since at least the New Deal. Such programs typically take one of two forms: reduced-price rental in public housing buildings or vouchers that provide rental assistance to low-income families seeking housing in the rental market. In the CPS, questions about receipt of these two types of housing assistance exist back to 1976 (for calendar year 1975). This means that housing

assistance receipt for years before 1975 must be imputed. To estimate the value of the assistance, we first estimate rental payments as 30% of household income and subtract this amount from the shelter portion of the threshold. We then apply a small correction factor given that this valuation will tend to overestimate the value of housing assistance relative to Census Bureau procedures, which are able to use rich administrative data in the modern period (further detail on both the imputation procedure and the benefit valuation can be found in Fox et al⁸).

Low Income Home Energy Assistance Program (LIHEAP). LIHEAP was first authorized in 1980 and funded in 1981. The CPS measures it starting in 1982 (for calendar year 1981). Thus, the CPS captures the entire history of the program, and no imputations were necessary for this program.

Taxes and tax credits. Like measures of SNAP/Food Stamps and the School Lunch Program, measures of after-tax income do not exist in the CPS before 1980 (for calendar year 1979). The government created the EITC, however, in 1975 (albeit in a much smaller form than the one that exists today) and the Child Tax Credit in 1997 to provide additional benefits to families with children. Income and payroll taxes have obviously existed for much longer. Thus, we must develop after-tax income measures in the years before 1980. We used the TAXSIM model of the National Bureau of Economic Research²⁰ to estimate these after-tax income variables (full details on the tax model are included in Fox et al⁸).

Nondiscretionary Expenses

In addition to the payroll and income tax payments generated from the tax model, the SPM also subtracts medical out-of-pocket expenses (MOOPs) from income, as well as capped work and child care expenses. The CPS asks about MOOPs and child care expenses directly starting only in 2010; we must impute these expenses into the CPS for virtually the whole period. For consistency, we use data from the CEX to impute MOOPs and child care expenses into the CPS for all years. Work expenses (eg, commuting costs) are never directly observed in the CPS and are currently estimated based on the Survey of Income and Program Participation (SIPP). We estimate work expenses back in time to 1997 using an extended time series provided to us by the Census Bureau. For years before that, we used a CPI-U inflation-adjusted value of the 1997-1998 median work expenditures (further details on the imputation of medical, work, and child care expenses can be found in Fox et al⁸).

Race/Ethnicity

We show results for three mutually exclusive racial and ethnic groups of children: non-Hispanic white, non-Hispanic black, and Latino. Results for Asian Americans are available only in the most recent years (since 1987), so we do not show them here because our focus is on long-term trends.

Definitions of race/ethnicity have changed in the United States over time, and this is reflected in changes to the Census Bureau's classification system. We apply the following schema to define race/ethnicity in a way that is as consistent as possible over the period we examine (even as the Census Bureau's system changes), categorizing respondents into four mutually exclusive groups: non-Hispanic white, non-Hispanic black, Latino, and other. In our schema, Latino ethnicity dominates over racial identification. Thus, if a respondent reports being of Hispanic or Latino ethnicity, she/he is included in the Latino group, regardless of racial classification. Next, we allow African American racial identification to dominate. Thus, if no Hispanic or Latino ethnicity is indicated, but African American or black is listed as a racial designation, we classify that individual as non-Hispanic black. We code respondents as non-Hispanic white if they are reported as white and not designated as Hispanic/Latino or non-Hispanic black (those who are not Latino, black, or white make up an "other" category; their poverty rates are not shown because of the limited sample size).

We note that our definition of race and ethnicity differs somewhat from that used in Census published estimates; in those estimates, the groups are not mutually exclusive in early years, with, for example, the "black" group containing both Hispanic blacks and non-Hispanic blacks. We chose to create mutually exclusive groupings that are different from those of the Census in order to retain more consistency both within and between groups over time. A disaggregation by race of anchored SPM rates for the Latino category is available in Figure A1 in the Appendix, showing that black Latinos have fared worse over time than have white or "other" Latino groups.

RESULTS

We begin by showing trends in racial and ethnic differences in poverty for the full US population in order to place our results for child poverty in context. All figures use 3-year moving averages. Figure 1 shows the long-term trends in poverty rates using the OPM. When this measure is used, poverty is substantially higher – throughout the entire time series – for non-Hispanic black and Latino individuals than for non-Hispanic white individuals. Indeed, for the entire time series, poverty among non-Hispanic black and Latino respondents is more than twice that among non-Hispanic white respondents. But, while non-Hispanic white poverty rates remain virtually flat, poverty rates for non-Hispanic blacks and Latinos declined beginning in the mid 1990s, so the race/ethnicity gaps in poverty rates are somewhat smaller in 2014 than they were in 1970.

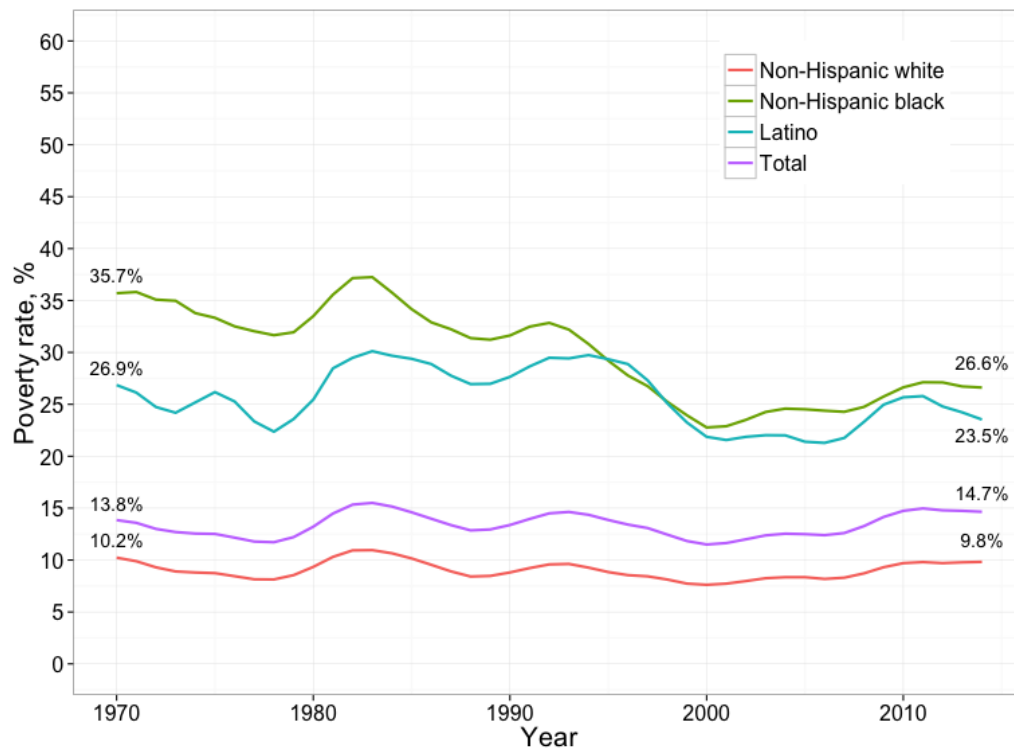


Figure 1. Official poverty measure rates by race/ethnicity, 1970-2014.

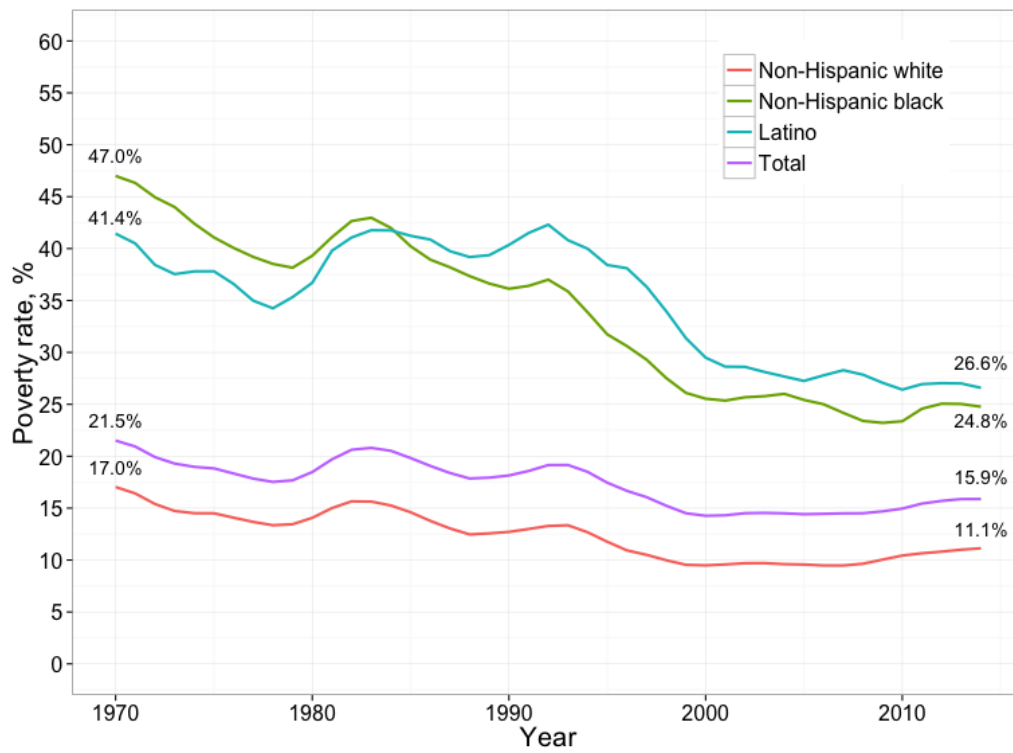


Figure 2. Anchored historical supplemental poverty rates by race/ethnicity, 1970-2014.

We now turn our attention to child poverty. Figures 3 and 4 show poverty rates for children by race and ethnicity using the OPM and SPM. According to both measures, non-Hispanic black and Latino children have substantially higher poverty rates than non-Hispanic white children throughout the entire time series. Notably, poverty rates decline more for non-Hispanic black, Latino, and non-Hispanic white children when the SPM is used than when the OPM is used. OPM poverty rates (Figure 3) decline between 1970 and 2014 from 44.4% to 38.1% for non-Hispanic black children but are relatively constant at 33.4% and 31.1% for Latino children, and they actually increase for non-Hispanic white children from 10.8% to 11.4%. In short, the OPM suggests little progress since 1970 in reducing poverty rates among racial and ethnic minority children, and a worsening of poverty among non-Hispanic white children.

The story is quite different, however, if we turn to the SPM (Figure 4). Here, the poverty rates of both non-Hispanic black and Latino children decline to 28.2% by 2014, for non-Hispanic black children from just over 55% and for Latino children from 48.9% in 1970. Non-Hispanic white poverty rates also decline—from 18.0% to 9.6%.

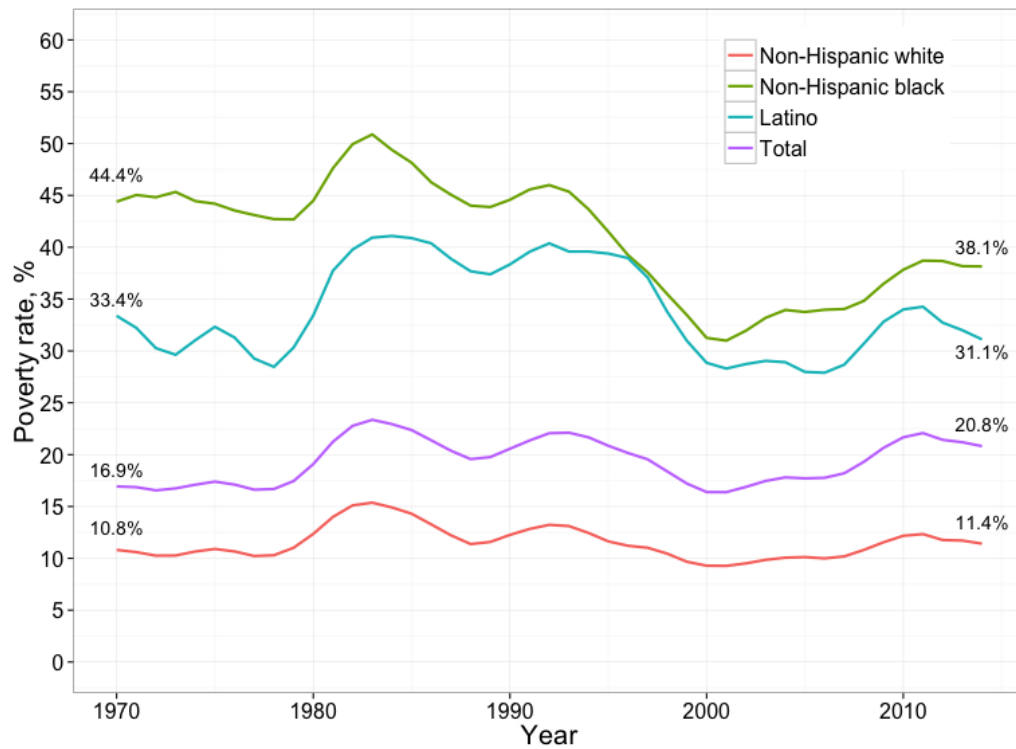


Figure 3. Official poverty measure rates among children by race/ethnicity, 1970-2014.

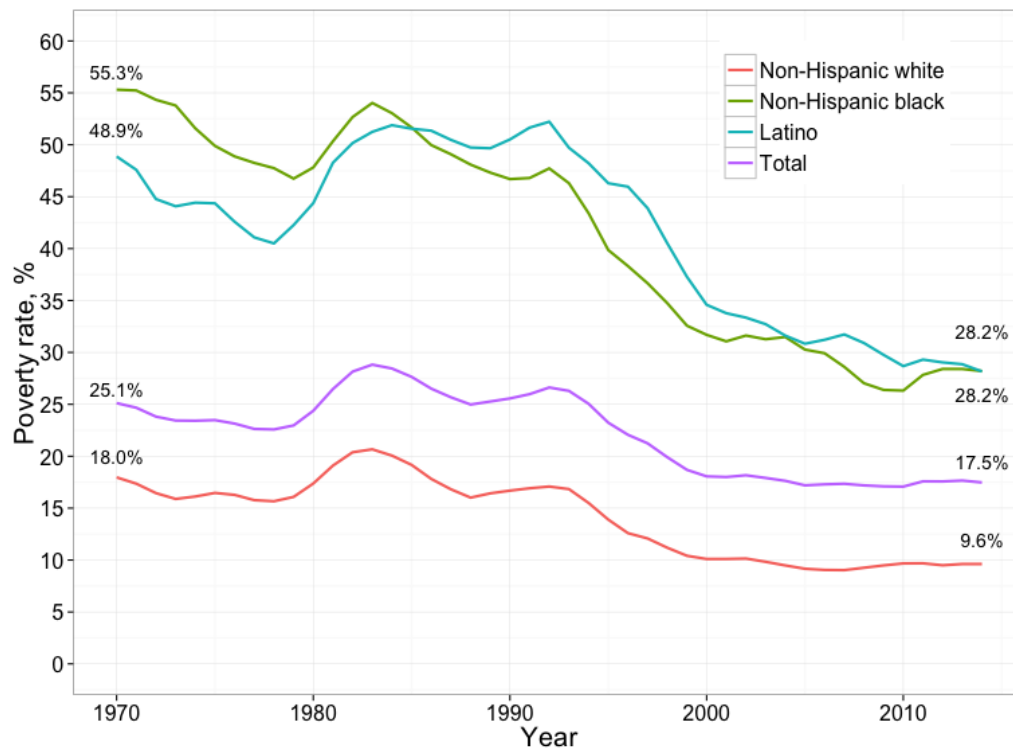


Figure 4. Anchored historical supplemental poverty rates among children by race/ethnicity, 1970-2014.

An advantage of the SPM is that it can be used to show the effect of taxes and transfers on poverty rates. In Figures 5 through 7, we investigate the effect of taxes and transfers on children's poverty rates by race/ethnicity.

For non-Hispanic white children (Figure 5), taxes and transfers made virtually no difference in SPM poverty rates for the first half of the time series. In 1990, for example, taxes and transfers brought the poverty rate down by about a percentage point (from 17.8% to 16.7%). This antipoverty effect grew over time after that, however; by 2014, the corresponding numbers were 16.5% and 9.6%. The effect that government programs had on the SPM poverty rate among non-Hispanic white children during the time series was largest during the Great Recession in the late 2000s. While the pre-tax/pre-transfer poverty rate jumped from 13.5% to 17.5% in just 5 years (from 2005 to 2010), the post-tax/post-transfer poverty increased less than 1 percentage point, from 9.2% to 9.7%. Thus, in 2010, government policies and programs reduced non-Hispanic white children's poverty rates by almost 8 percentage points, compared with just over 4 percentage points only 5 years earlier.

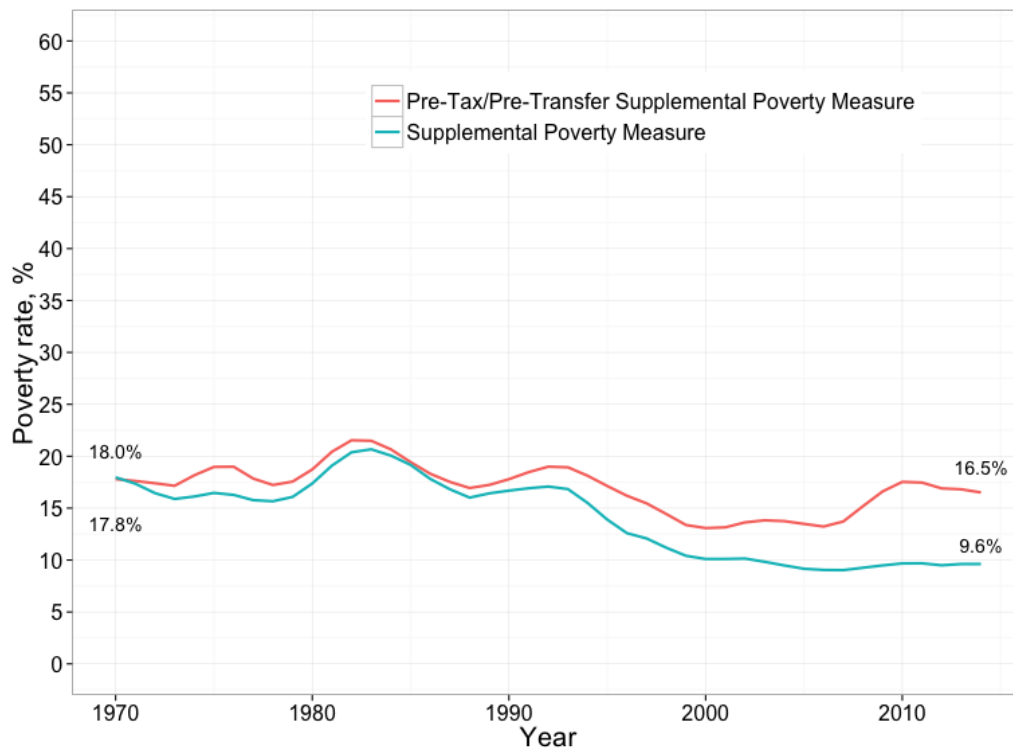


Figure 5. Anchored historical supplemental poverty measure rates among non-Hispanic white children, 1970-2014, pre and post taxes and transfers.

As noted earlier, the SPM poverty rate for non-Hispanic black children is substantially higher – well over twice the poverty rate of non-Hispanic white children – across the entire time series. However, the antipoverty role of government taxes and transfers has grown tremendously for this group of children, particularly in the 2000s (Figure 6). By 2014, government policies and programs had reduced the poverty rates of non-Hispanic black children by almost 20 percentage points (from 47.9% to 28.2%).

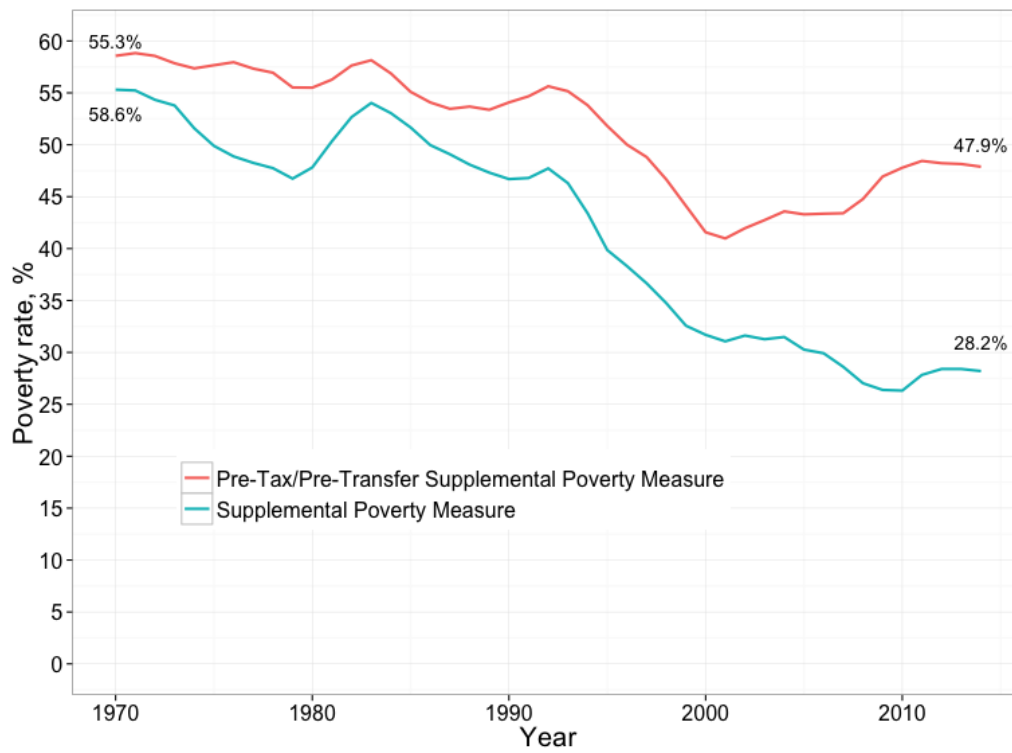


Figure 6. Anchored historical supplemental poverty measure rates among non-Hispanic black children, 1970-2014, pre and post taxes and transfers.

Figure 7 shows analogous results for Latino children. Government policies and programs begin to bring down child poverty among Latino children in the late 1980s, much later than among non-Hispanic black children. The SPM poverty rate among Latino children declined quite sharply in the 1970s but rebounded to very high levels in the 1980s and early 1990s. By 1990, 50.5% of Latino children were living in poverty. Starting in 1985, government programs began to reduce poverty substantially among Latino children. While SPM poverty declined for Latino children throughout the mid to late 1990s, government programs made this decline significantly sharper than it would have been otherwise. The safety net also played a large role in stabilizing the poverty rate among Latino children during the Great Recession of the late 2000s. Whereas the pre-tax/pre-transfer poverty rate increased 6 percentage points from 2005 to 2010 (from 39.2% to 45.5%), the post-tax/post-transfer poverty rate remained relatively constant, at around 30%.

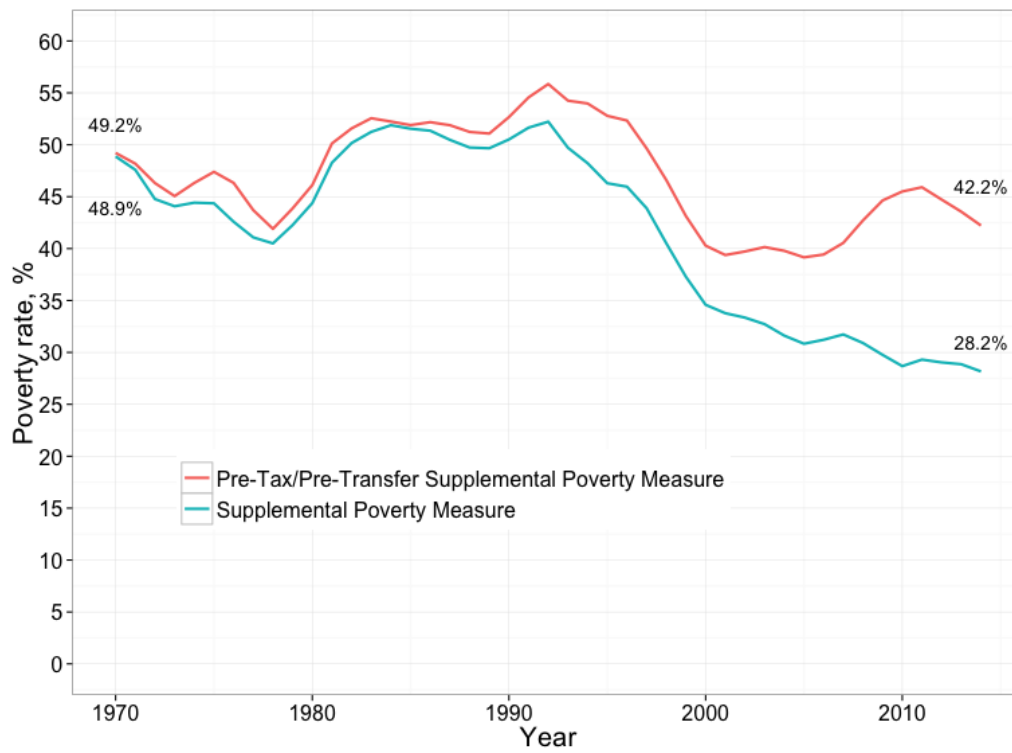


Figure 7. Anchored historical supplemental poverty measure rates among Latino children, 1970-2014, pre and post taxes and transfers.

DISCUSSION AND CONCLUSION

Using an anchored, historical version of the Census Bureau's SPM, we provide estimates of historical trends in poverty for non-Hispanic white, non-Hispanic black, and Latino children. These estimates improve upon those available from official poverty statistics because they are based on updated poverty thresholds, a more modern definition of family structure, and a more comprehensive measure of family resources, including important benefits like in-kind transfers and tax credits not captured in the OPM. In so doing, we provide what we argue to be superior evidence of the progress made against child poverty since the War on Poverty – progress that would be missed if we relied on trends from official poverty statistics alone. We hope our analyses will contribute to the policy and public discourse on antipoverty programs by providing details of their historical efficacy and illuminating the important subgroups of children among whom there is substantial room for improvement.

Our results differ from those provided by official statistics in several respects. The SPM, which includes a much broader definition of resources than the OPM, shows much more progress in the reduction of child poverty for

racial/ethnic minority children, as well as non-Hispanic white children, than can be seen from the OPM statistics. In particular, the anchored SPM sheds light on the important and growing antipoverty role of the safety net, particularly for children and especially for non-Hispanic black and Latino children. For non-Hispanic black children, the safety net has reduced poverty since the late 1970s and now lowers poverty in this group by about 20 percentage points. Without the safety net, the non-Hispanic black child poverty rate would be 47.9%; after transfers and taxes, it falls to 28.2%. Government policies and programs are thus playing a large role in reducing disparities in child poverty rates between non-Hispanic white and non-Hispanic black children, and increasingly so over time.

A similar although less marked role of the safety net is also evident for Latino children. Starting later – in the 1980s – the safety net also reduces poverty for this group and now cuts poverty among Latino children by 14 percentage points. Without the safety net, the Latino child poverty rate would be 42.2%; after transfers and taxes, it falls to 28.2%. As with other racial and ethnic groups, we see a growing role of government policies and programs in reducing Latino children's poverty rates between the beginning and end of the time series. We also note that among Latino respondents, the steep increase in OPM poverty during the Great Recession is substantially reduced when the SPM is used.

Our results are consistent with those provided by official statistics in showing that the rate of child poverty in the United States is very high for both non-Hispanic black and Latino children. However, we find that the SPM poverty rate among Latino respondents is higher than the SPM poverty rate among non-Hispanic black respondents, whereas the OPM poverty rate is consistently higher for non-Hispanic black respondents across the entire time series. This pattern likely reflects the fact that a greater proportion of low-income non-Hispanic black families are eligible for antipoverty programs than of Latino families, some of whom will be undocumented.

Although our results show a greater role of the safety net than would be suggested by OPM estimates, it is still the case that even when the safety net is taken into account, child poverty rates remain considerably higher among non-Hispanic black and Latino children than among their non-Hispanic white counterparts. Our estimates make clear that these differentials derive primarily from pre-tax and pre-transfer poverty and thus are due to lower market incomes for these children's households. This finding suggests that measures to tackle high child poverty rates among non-Hispanic black and Latino children should include not just expansions of the safety net but also policies and opportunities to boost family members' employment and earnings. Such policies would include higher minimum wages as well as education and training policies and programs to support education and skills development among low-income children, youth, and adults.

APPENDIX

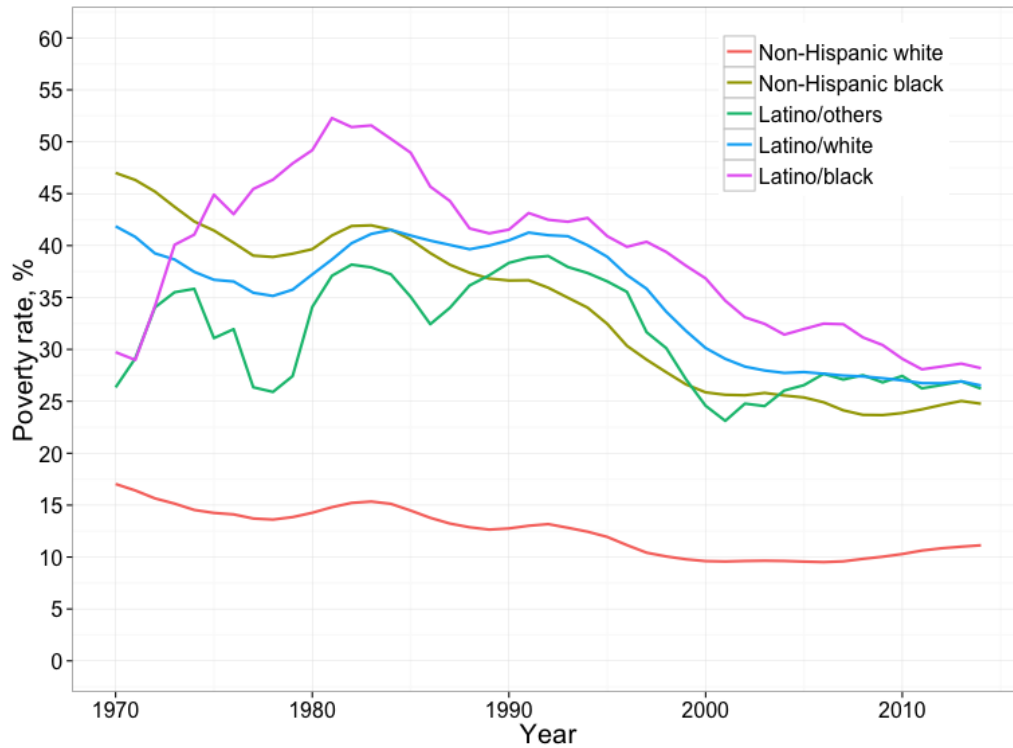


Figure A1. Anchored historical supplemental poverty measure rate by race (Latino disaggregated), 1970-2014.

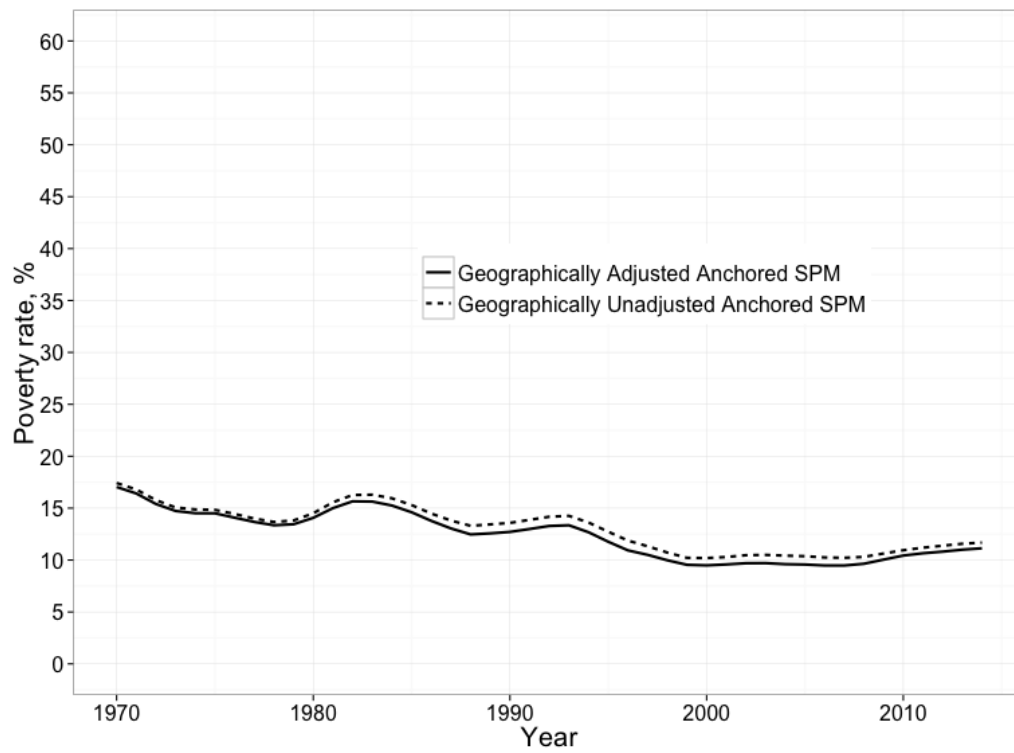


Figure A2. Geographically adjusted and unadjusted anchored historical supplemental poverty measure rate (SPM), non-Hispanic white.

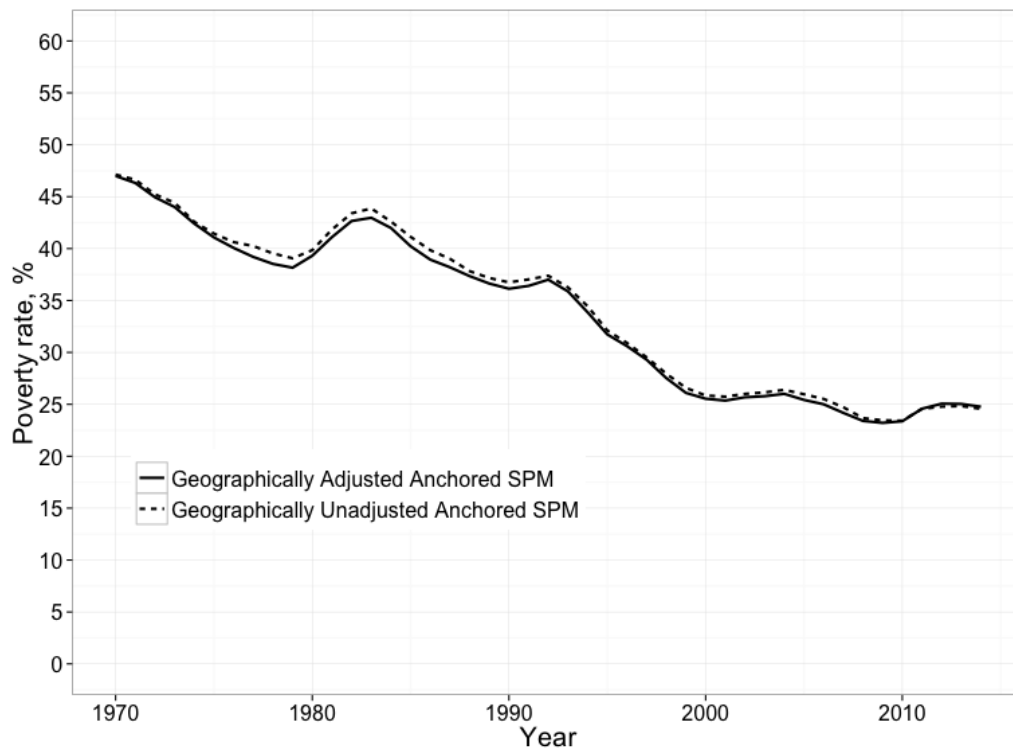


Figure A3. Geographically adjusted and unadjusted anchored historical supplemental poverty measure rate (SPM), non-Hispanic black.

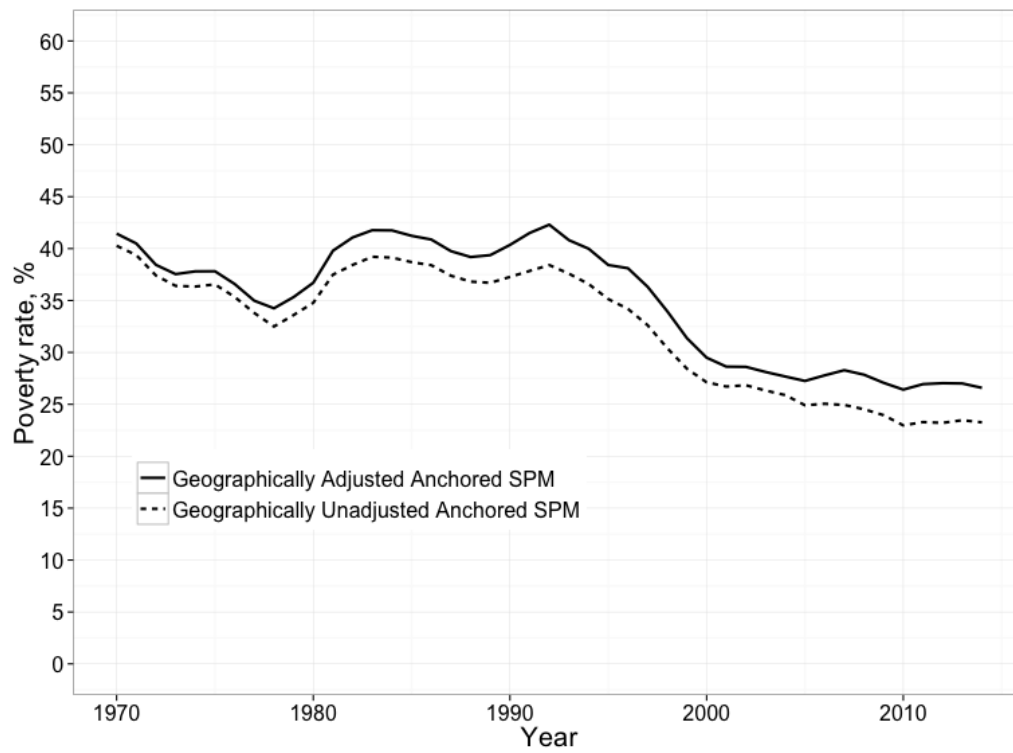


Figure A4. Geographically adjusted and unadjusted anchored historical supplemental poverty measure (SPM) rate, Latino.

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